1.      (Amended) A device comprising:

a plurality of LEDs configured to produce light that includes at least two different

spectra;

a material configured to receive the light emitted from the plurality of LEDs, and to

display a color that is a combination of the at least two different spectra;

a processor configured to generate at least one control signal to control power delivered

to one or more of the plurality of LEDs, the processor further configured to change the at least

one control signal over time so as to produce from the device at least one dynamic lighting

effect; and

a user interface adapted to receive a user input to control operation of the processor.


2.      (Amended) The device of claim 1 wherein the processor is configured to operate in one

of a plurality of modes, each mode producing at least one dynamic lighting effect according to

one or more parameters.


3.      The device of claim 1 wherein the user interface consists of a single button.


4.      The device of claim 1 wherein the user interface consists of two buttons.


5.      The device of claim 1 wherein the user interface includes an adjustable input.


6.      The device of claim 1 wherein the user interface includes at least one of a button, a dial, a

slider, a knob, or a keypad.


7.      (Amended) The device of claim 1 wherein the at least one dynamic lighting effect

comprises at least one color-changing effect including at least one of a color wash, a strobe, a

fade, or a Holiday lighting effect.


8.      (Amended) The device of claim 1 wherein the device is configured as a consumer

product.


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Please add claims 9 - 103 as follows:

9.     (New) The device of claim 1, wherein the device is configured as a replacement lighting device to engage mechanically and electrically with a conventional power adapter or socket.

10.     (New) The device of claim 1, wherein the device is configured as a light bulb.

11.     (New) The device of claim 1, wherein the device is configured as a landscape lighting device.

12.     (New) The device of claim 1, wherein the device is configured as a night light.

13.     (New) The device of claim 1, wherein the device is configured as a rope light.

14.     (New) The device of claim 1, wherein the device is configured as a household product.

15.     (New) The device of claim 1, wherein the device is configured as a pen.

16.     (New) The device of claim 1, wherein the device is configured to form at least part of a consumer electronic device.

17.     (New) The device of claim 1, wherein the device is configured as a glow stick.

18.     (New) The device of claim 1, wherein the device is configured as an ornamental or decorative lighting device.

19.     (New) The device of claim 18, wherein the device is configured as at least one icicle-shaped lighting device.

20.     (New) The device of claim 1, wherein the device is configured to form at least part of a toy or game.

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21.     (New)  The device of claim 20, wherein the toy is constructed and arranged as a lighted ball.

22.     (New)  The lighted ball of claim 21, further comprising a ball housing, wherein:

at least a portion of the ball housing includes the material; and

the plurality of LEDs are arranged to illuminate the portion of the ball housing including the material.

23.     (New)  The lighted ball of claim 22, further comprising:

at least one switch associated with the processor, wherein the at least one switch comprises at least one of a Hall effect switch, a motion sensing switch, a proximity detector, a sensor, a transducer, a capacitive switch, and an inductive switch,

wherein the processor is configured to be responsive to the at least one switch so as to generate the at least one control signal.

24.     (New)  The device of claim 1, wherein the device is configured to form at least part of a wearable accessory.

25.     (New)  The device of claim 24, wherein:

the device is at least partially enclosed in at least one housing;

at least a portion of the housing includes the material; and

the housing is formed as at least one of a piece of jewelery, a badge, a shoe, a sneaker, an article of clothing, a hat, and an ornamental device.

26.     (New)  The device of claim 25, wherein the material includes an at least partially light-transmissive material having at least one of a pattern, an etched surface, and an image thereon.

27.     (New)  The device of claim 25, wherein the material is formed into a shape of at least one of an icon, a logo, a branded image, a character, and a symbol.

28. (New) The device of claim 1, further including at least one support for the plurality of LEDs, wherein the material is arranged with respect to the at least one support such that the light generated by the plurality of LEDs illuminates the material.

29. (New) The device of claim 1, further including at least one sensor to monitor at least one detectable condition, wherein the processor is configured to generate the at least one control signal in response to the at least one detectable condition.

30. (New) The device of claim 1, wherein the processor is configured to receive information from a network and process the information so as to generate the at least one control signal.

31. (New) The device of claim 1, further including at least one timing device, wherein the processor is configured to respond to the at least one timing device so as to generate timed dynamic lighting effects.

32. (New) The device of claim 31, wherein the at least one timing device includes a calendar, and wherein the processor is configured to respond to the calendar so as to generate seasonal dynamic lighting effects.

33. (New) The device of claim 1, wherein the material comprises at least one of a semi-transparent material, a translucent material, a light-diffusing material and a transparent material.

34. (New) The device of claim 33, wherein the material includes a pattern of defects configured to redirect the light passing through or along the material.

35. (New) The device of claim 33, further comprising a housing, wherein the plurality of LEDs and the processor are supported by the housing, and wherein the material forms at least a portion of the housing.

36. (New) The device of claim 35, wherein the housing is configured such that the plurality of LEDs and the processor are substantially enclosed by the housing.

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37. (New) The device of claim 35, wherein the user interface is integrated into the housing.

38. (New) The device of claim 33, further comprising:

a first housing portion that substantially encloses at least the processor; and

a second housing portion, coupled to the first housing portion, that substantially encloses the at least two LEDs, wherein the material forms at least a portion of the second housing portion.

39. (New) The device of claim 38, wherein the first housing portion includes a battery case configured to contain at least one battery to provide power to the device.

40. (New) The device of claim 1, further comprising at least one optic.

41. (New) The device of claim 40, wherein the at least one optic includes at least one detachable optic.

42. (New) The device of claim 40, wherein the at least one optic includes one of a reflector, a diffuser, a filter, a lens, a secondary optic, a holographic lens, an anamorphic lens, and a patterned lens.

43. (New) The device of claim 1, further comprising a power converter to provide power for at least one of the processor and the plurality of LEDs.

44. (New) The device of claim 1, further comprising a power connection adapted to engage mechanically and electrically with a conventional light socket.

45. (New) The device of claim 44, wherein the power connection includes at least one of a plug, a bi-pin base, and a screw base.

46. (New) The device of claim 44, wherein:

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the power connection includes a base adapted to engage mechanically and electrically with a conventional three-way socket; and

the user interface includes a switch of the conventional three-way socket,

wherein the processor is configured to generate the at least one control signal based at least in part on a setting of the switch of the conventional three-way socket.

47.     (New) The device of claim 1, wherein the processor is configured to monitor a power supply signal to the device and to generate the at least one control signal based at least in part on the monitored power supply signal.

48.     (New)  The device of claim 47, wherein the user interface is configured to control at least power to the device.

49.     (New)  The device of claim 48, wherein the user interface includes a conventional AC dimmer control to vary the power supply signal to the device, and wherein the processor generates the at least one control signal in response to operation of the conventional AC dimmer control.

50.     (New)  The device of claim 49, wherein the processor is configured to produce from the device the at least one dynamic lighting effect in response to operation of the conventional AC dimmer control, including at least one of a dimming effect, a color-changing effect, and a light pattern effect.

51.     (New) The device of claim 1, further comprising a memory to store at least one lighting program, wherein:

the processor is configured to execute at least one lighting program stored in the memory and to generate the at least one control signal based on the executed at least one lighting program; and

the user interface is configured to allow a user to do at least one of the following:

select a desired lighting program stored in the memory for execution by the     •

processor; and

modify the execution of at least one lighting program.

52.    (New) The device of claim 51, wherein at least one lighting program includes at least one adjustable parameter and is arranged to cause the device to produce the at least one dynamic lighting effect according to the at least one adjustable parameter when executed by the processor, and wherein:

the user interface is configured to allow the user to adjust the at least one adjustable parameter of the at least one lighting program.

53.    (New) The device of claim 51, wherein the user interface is adapted to output at least one of a logic high signal and logic low signal to the processor, and wherein the processor is configured to select at least one lighting program from the memory upon receipt of the signal output by the user interface.

54.    (New) The device of claim 51, wherein the user interface is adapted to output at least one of a logic high signal and logic low signal to the processor, and wherein the processor is configured to adjust at least one parameter of the at least one lighting program upon receipt of the signal output by the user interface.

55.    (New) The device of claim 51, wherein the processor is adapted to measure a duration of a signal output by the user interface, and wherein the processor is configured to adjust at least one parameter of the at least one lighting program upon receipt of a signal output by the user interface having a predetermined duration.

56.    (New) The device of claim 55, wherein the processor is configured to continually change the at least one parameter until the signal output by the user interface changes.

57.    (New) The device of claim 51, further comprising an analog to digital converter, wherein:

the user interface is configured to generate an analog signal;

the analog to digital converter is arranged to convert the analog signal to a digital signal; and

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the processor is configured to generate the at least one control signal in response to the digital signal.

58.     (New) The device of claim 51, further comprising a housing, wherein the plurality of LEDs and the processor are supported by the housing, wherein the user interface is integrated with the housing, and wherein the material forms at least a portion of the housing.

59.     (New) The device of claim 58, wherein the at least one user interface includes at least one of a button, a dial, a slider, a knob, a switch, a variable switch, a variable selector, a keypad, a thumbwheel and a rotatable dial that forms a collar around the housing.

60.     (New) The device of claim 51, wherein the user interface is located remotely from the processor.

61.     (New) The device of claim 60, wherein the user interface and the processor are configured to communicate via at least one of an electromagnetic transmission, a radio frequency transmission, an infrared transmission, a microwave transmission, an acoustic transmission, a wire transmission, a cable transmission, and a network transmission.

62.     (New) The device of claim 51, further comprising at least one controller coupled to the processor and configured to control the plurality of LEDs in response to the at least one control signal, the controller including at least one of a pulse width modulator, a pulse amplitude modulator, a pulse displacement modulator, a resistor ladder, a current source, a voltage source, a voltage ladder, a switch, a transistor, and a voltage controller.

63.     (New) The device of claim 51, further comprising a display associated with the processor.

64.     (New) The device of claim 63, wherein the display includes at least one of an LCD screen, a plasma screen, a monochrome screen, a black and white screen and a color screen.

65.     (New) The device of claim 63, wherein the display is adapted to display information regarding at least one of: at least one lighting program; at least one setting of at least one lighting program; at least one parameter of at least one lighting program; available lighting programs; a time; a date; and control information.

66.     (New) The device of claim 51, wherein:

the processor is configured to monitor power to the device and to generate the at least one control signal based at least in part on the monitored power; and

the user interface is configured to control at least the power to the device.

67.     (New) The device of claim 66, wherein the processor is configured to select a different lighting program from the memory if the monitored power includes a power cycle having less than a predetermined duration.

68.     (New) The device of claim 67, wherein the memory includes at least one of a non-volatile memory and a battery-backed memory, and wherein the processor is configured to select from the memory a last executed lighting program if the monitored power includes a power cycle having greater than the predetermined duration.

69.     (New) In a device comprising a plurality of LEDs configured to produce light that includes at least two different spectra, and a material configured to receive the light emitted from the plurality of LEDs and display a color that is a combination of the at least two different spectra, a method comprising an act of:

A) controlling a power delivered to one or more of the plurality of LEDs over time, in response to a user input, so as to produce at least one dynamic lighting effect.

70.     (New) The method of claim 69, wherein the method further comprises an act of:

selecting one mode of a plurality of modes in response to the user input, each mode configured to produce at least one dynamic lighting effect according to one or more parameters; and

performing the act A) based at least in part on the selected one mode.

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71.  (New) The method of claim 70, wherein the method further comprises acts of:

adjusting the one or more parameters of the selected one mode in response to the user

input; and

performing the act A) based at least in part on the adjusted one or more parameters.


72.  (New) The method of claim 69, further comprising an act of:

B)  providing the user input via only a single user operated device.


73.  (New) The method of claim 72, wherein the single user operated device includes a single

button, and wherein the act B) comprises an act of:

providing the user input via only the single button.


74.  (New) The method of claim 69, further comprising an act of:

providing the user input via only two user operated buttons.


75.  (New) The method of claim 69, further comprising an act of:

providing the user input via at least one adjustable user operated device so as to provide

at least one adjustable user input.


76.  (New) The method of claim 69, further comprising an act of:

providing the user input via at least one of a button, a dial, a slider, a knob, a switch, a

variable switch, a variable selector, a keypad, a thumbwheel and a rotatable dial that forms a

collar around the device.


77.  (New) The method of claim 69, wherein the at least one dynamic lighting effect

comprises at least one color-changing effect including at least one of a color wash, a strobe, a

fade, or a Holiday lighting effect, and wherein the act A) comprises an act of:

controlling the power delivered to the one or more LEDs, in response to the user input, so

as to produce at least one of the color wash, the strobe, the fade, or the Holiday lighting effect.


78.  (New) The method of claim 69, further comprising acts of:

monitoring at least one detectable condition; and

performing the act A) based at least in part on the at least one detectable condition and the user input.

79.    (New)  The method of claim 78, wherein the at least one detectable condition includes at least one environmental condition, and wherein the method comprises acts of:

monitoring the at least one environmental condition; and

performing the act A) based at least in part on the at least one environmental condition and the user input.

80.    (New) The method of claim 69, further comprising acts of:

receiving information from a network; and

processing the information so as to perform the act A).

81.    (New)  The method of claim 69, wherein the device further includes at least one timing device, and wherein the method further comprises an act of:

B)  performing the act A) in response to the at least one timing device and the user input so as to generate timed dynamic lighting effects.

82.    (New)  The method of claim 81, wherein the at least one timing device includes a calendar, and wherein the act B) comprises an act of:

performing the act A) in response to the calendar and the user input so as to generate seasonal dynamic lighting effects.

83.    (New) The method of claim 69, further comprising acts of:

monitoring a power supply signal to the device; and

performing the act A) based at least in part on the monitored power supply signal.

84.    (New)  The method of claim 83, further comprising an act of:

B)  controlling at least power to the device via a user interface to provide the user input.

85.    (New)  The method of claim 84, wherein the user interface includes a conventional AC dimmer control, and wherein the act B) comprises acts of:

varying the power supply signal to the device via the conventional AC dimmer control; and

performing the act A) in response to user operation of the conventional AC dimmer control.

86.    (New)  The method of claim 85, wherein the act A) comprises an act of:

producing from the device the at least one dynamic lighting effect in response to operation of the conventional AC dimmer control, including at least one of a dimming effect, a color-changing effect, and a light pattern effect.

87.    (New) The method of claim 69, wherein the device further comprises a power connection adapted to engage mechanically and electrically with a conventional light socket, and wherein the method further comprises an act of:

providing the user input via at least one user interface that controls at least power provided to the conventional light socket.

88.    (New)  The method of claim 87, wherein the power connection includes at least one of a plug, a bi-pin base, and a screw base.

89.    (New)  The method of claim 87, wherein:

the power connection is adapted to engage mechanically and electrically with a conventional three-way socket; and

the at least one user interface includes a switch of the conventional three-way socket, wherein the act A) comprises an act of:

controlling at least the power delivered to one or more of the plurality of LEDs based at least in part on a setting of the switch of the conventional three-way socket.

90.    (New) The method of claim 69, wherein the device further comprises a memory to store at least one lighting program, wherein the act A) comprises acts of:

B) executing at least one lighting program stored in the memory to control the power delivered to the one or more LEDs based on the at least one lighting program; and

C) performing one of the following acts in response to the user input:

C1) selecting a desired lighting program stored in the memory for execution in the act B); and

C2) modifying the execution of the at least one lighting program.

91.     (New) The method of claim 90, wherein the at least one lighting program includes at least one adjustable parameter, wherein the at least one lighting program is arranged to cause the device to produce the at least one dynamic lighting effect according to the at least one adjustable parameter when executed, and wherein the act C2) comprises an act of:

adjusting the at least one adjustable parameter of the at least one lighting program via the user input.

92.     (New) The method of claim 90, wherein the user input includes at least one of a logic high signal and logic low signal, and wherein the act C1) comprises an act of:

selecting the desired lighting program from the memory in response to the at least one of the logic high signal and the logic low signal.

93.     (New) The method of claim 90, wherein the user input includes at least one of a logic high signal and logic low signal, and wherein the act C2) comprises an act of:

adjusting at least one parameter of the at least one lighting program in response to the at least one of the logic high signal and the logic low signal.

94.     (New) The method of claim 90, further comprising an act of:

measuring a duration of the user input,

wherein the act C2) comprises an act of adjusting at least one parameter of the at least one lighting program based on a predetermined duration of the user input.

95.     (New) The method of claim 94, wherein the act C2) comprises an act of continually changing the at least one parameter until the user input changes.

96.    (New) The method of claim 90, further comprising acts of:

    providing the user input as an analog signal;

    converting the analog signal to a digital signal; and

    performing the act A) in response to the digital signal.

97.    (New) The method of claim 90, further comprising an act of:

    D) providing the user input remotely from the device.

98.    (New) The method of claim 97, wherein the act D) comprises an act of:

    providing the user input via at least one of an electromagnetic transmission, a radio frequency transmission, an infrared transmission, a microwave transmission, an acoustic transmission, a wire transmission, a cable transmission, and a network transmission.

99.    (New) The method of claim 90, wherein the act A) comprises an act of:

    controlling the power to the one or more LEDs using at least one of a pulse width modulator, a pulse amplitude modulator, a pulse displacement modulator, a resistor ladder, a current source, a voltage source, a voltage ladder, a switch, a transistor, and a voltage controller.

100.    (New) The method of claim 90, wherein the device further comprises a display, and wherein the method further comprises an act of:

    displaying information on the display regarding at least one of: at least one lighting program; at least one setting of at least one lighting program; at least one parameter of at least one lighting program; available lighting programs; a time; a date; and control information.

101.    (New) The method of claim 90, further comprising acts of:

    monitoring power to the device;

    performing the act A) based at least in part on the monitored power; and

    controlling the power to the device via the user input.

102.    (New) The method of claim 101, further comprising an act of:

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selecting a different lighting program from the memory if the monitored power includes a power cycle having less than a predetermined duration.

103.    (New) The method of claim 102, wherein the memory includes at least one of a non-volatile memory and a battery-backed memory, and wherein the act of selecting a different lighting program includes an act of selecting from the memory a last executed lighting program if the monitored power includes a power cycle having greater than the predetermined duration.